BRUHAT BANGALORE MAHANAGARA PALIKE
BYTARAYANPURA DIVISION

Name of Work Package - 2, includes 5 works of Rs. 90.00 lakhs.

1 Improvements of Roads and Drains in Kodigehalli Village in Ward no 08 Kodigehalli Est Cost 25.00 Lakhs.

2) Providing Borewells and Pipeline Work in Kodigehalli in Ward No.08. Kodigehalli Est Cost 25.00 Lakhs.

3) Improvements of Roads and Drains in Kodigehalli and Surrounding in Ward no 08 Kodigehalli Est Cost 25.00 Lakhs.

4.Maintenance Works to Ward Office Ward No 08 Est Cost 5.00 Lakhs.

5. Drilling of Borewells and Providing pipeline atKodigehalli in Ward No.08. Est Cost 10.00 Lakhs

Name of Work: Drilling of Borewells and Providing pipeline atKodigehalli in Ward No.08.

2nd & FINAL BILL

MEASUREMENT BOOK

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work: Drilling of Borewells and Providing pipeline at Kodigehalli in Ward No.08.

Job Code:- 008-19-000016

Name of Contractor:- Sri N. Venkata Reddy

Sl. No.	Description of work	No.	Length m	Breadth m	Depth m	Quantity	Unit
	Pre- Measurement Recoded on 15-10-2020						
13	Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of P.W.S.S by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, Gerophysical investigation of existing Ground Wate in the vicinity, its qualityf 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site., engaging techinical personal and labour required etc., as per Specification and direction (P.47, I. 9.4) PRED.SR 2012-13						
	In Front of B.B.M.P Ward Offiec 8	1				1.00	No's
	Pre- Measurement Recoded on 15-10-2020						
14	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,) Page no. 46 / I. 9.1 PRED SR 2012-13						
	0 to 50 m	1	50.00			50.00	Rmtr
15	50 to 100 m	1	50.00			50.00	Rmtr
16	100 to 150 m	1	50.00			50.00	Rmtr
17	150 to 200 m	1	50.00			50.00	Rmtr
18	200 to 250 m	1	50.00			50.00	Rmtr
19	251 to 300 m	1	50.00			50.00	Rmtr
	Pre- Measurement Recoded on 15-10-2020						
22	Supply of ISI mark 175 mm nominal bore medium black ERW casing pipe of 5 mm thick black electric resistance continuous welded mild steel tube material confirming to IS 1387 / 1993 & manufactured from hot rolled steel skelp / stripes in random length of 4 to 7 mts both ends threaded confirming to IS 554 / 1985, one end fixed with a socket and the other and with a plastic protection end (including of all taxes) SE PRED III NO 84						
	In Front of B.B.M.P Ward Offiec 8	1	20.00			20.00	

Contractor

Assistant Engineer

Assistant Executive Engineer

Pre- Measurements

Sl. No.	Description of work	No.	Length m	Breadth m	Depth m	Quantity	Unit
		1	20.00			20.00	
						40.00	Mtr
	Pre- Measurement Recoded on 15-10-2020						
72	Providing 250mm dia PVC Pipe BWSSB SR 16-17 PNO 57 SL NO 11						
		1	15.00			15.00	Rmtr
	Pre- Measurement Recoded on 15-10-2020						
73	Providing 175mm dia ms casing cap page no III it no 85 pred 12-13 sr						
	In Front of B.B.M.P Ward Offiec 8	1				1.00	no
	Pre- Measurement Recoded on 15-10-2020						
74	Providing MS Casing pipe collars page no III it no 86 pred 12-13 sr						
	In Front of B.B.M.P Ward Offiec 8	1	10.00			10.00	No's
	Pre- Measurement Recoded on 22-10-2020						
98	Earth work excavation for foundation of buildings, culverts, water supply, sanitary lines and electrical conduits either in pits or in trenches, 1.5m and above in width, in ordinary soil, exceeding 1.5m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with all lead upto 50m after breaking of clods complete as per specifications.(P.No.6, I.No.2.1) (SR of PWD)						
	Maruthinagr 2nd Cross	13	30.00	0.60	0.75	175.50	
	Maruthinagr 3rd Cross	1	25.00	0.60	0.75	11.25	
						186.75	Cu-m
	Pre- Measurement Recoded on 24-10-2020						
95	KSRB13-3.1: Providing and fixing to wall celling and floor glavanised/ mild steel tubes (medium grade 1.27 kg /mt) B class 50 mm dia nominal bore with all fittings (earth work in trenches to be measured and paid for separately) including cost of all materials, labour charges, HOM of equipments and testing complete as per specifications. (Page 92 ITEM NO 13.6)						
		13	30.00			390.00	
		1	25.00			25.00	
						415.00	Mtr
	Pre- Measurement Recoded on 26-10-2020						
99	KSRB 2.3 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms in depth, compacting each deposited layer by ramming after watering with a lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications Specification No.KBS 2.1 .(Page No.7, Item No. 2.10)						
	Quantity Vide Item No 98				cum	186.75	Cu-m

N. V
Contractor

Assistant Engineer

Assistant Executive E
Kodigehalli Sub Di
BBMP, Bangalo

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work: Drilling of Borewells and Providing pipeline atKodigehalli in Ward No.08.

Job Code:- 008-19-000016

Name of Contractor:- Sri N. Venkata Reddy Measurement Recorded on 30-11-2020 ~~28 to 2020~~ Recorded

Sl. No.	Description of work	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Unit	Amount in Rs.
13	Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of P.W.S.S by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, Gerophysical investigation of existing Ground Wate in the vicinity, its qualityf 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site., engaging techinical personal and labour required etc., as per Specification and direction (P.47, I. 9.4) PRED.SR 2012-13								
	Pre - Measurement Quantity Recorded On Page No 01					1.00			
	Quantity to be Paid					1.00	₹ 2,075.00	No's	₹ 2,075.00
14	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,) Page no. 46 / I. 9.1 PRED SR 2012-13								
	0 to 50 m								
	Pre - Measurement Quantity Recorded On Page No 01					50.00			
	Quantity to be Paid					50.00	₹ 338.00	Rmtr	₹ 16,900.00
15	50 to 100 m								
	Pre - Measurement Quantity Recorded On Page No 01					50.00			
	Quantity to be Paid					50.00	₹ 441.00	Rmtr	₹ 22,050.00
16	100 to 150 m								
	Pre - Measurement Quantity Recorded On Page No 01					50.00			
	Quantity to be Paid					50.00	₹ 491.00	Rmtr	₹ 24,550.00
17	150 to 200 m								
	Pre - Measurement Quantity Recorded On Page No 01					50.00			
	Quantity to be Paid					50.00	₹ 517.00	Rmtr	₹ 25,850.00
18	200 to 250 m								
	Pre - Measurement Quantity Recorded On Page No 01					50.00			
	Quantity to be Paid					50.00	₹ 599.00	Rmtr	₹ 29,950.00
19	251 to 300 m								
	Pre - Measurement Quantity Recorded On Page No 01					50.00			
	Quantity to be Paid					50.00	₹ 642.00	Rmtr	₹ 32,100.00
22	Supply of ISI mark 175 mm nominal bore medium black ERW casing pipe of 5 mm thick black electric resistance continuous welded mild steel tube material confirming to IS 1387 / 1993 & manufactured from hot rolled steel skelp / stripes in random length of 4 to 7 mts both ends threaded confirming to IS 554 / 1985, one end fixed with a socket and the other and with a plastic protection end (including of all taxes) SE PRED III NO 84								
	Pre - Measurement Quantity Recorded On Page No 02					40.00			
	Quantity to be Paid					40.00	₹ 1,417.00	Mtr	₹ 56,680.00

Contractor

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer
Kodigehalli Sub Division

S No.	Description of work	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Unit	Amount in Rs.
72	Providing 250mm dia PVC Pipe BWSSB SR 16-17 PNO 57 SL NO 11								
	Pre - Measurement Quantity Recorded On Page No 02					15.00			
	Quantity to be Paid					15.00	₹ 1,225.00	Rmtr	₹ 18,375.00
73	Providing 175mm dia ms casing cap page no III it no 85 pred 12-13 sr								
	Pre - Measurement Quantity Recorded On Page No 02					1.00			
	Quantity to be Paid					1.00	₹ 108.00	No's	₹ 108.00
74	Providing MS Casing pipe collars page no III it no 86 pred 12-13 sr								
	Pre - Measurement Quantity Recorded On Page No 02					10.00			
	Quantity to be Paid					10.00	₹ 161.00	No's	₹ 1,610.00
	Measurement Recorded On								
75	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings . PAGE NO XXXXII								
	17.5 HP 30 Stage	1				1.00	₹ 77,174.00	Set	₹ 77,174.00
	Measurement Recorded On								
76	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper conductor confirming to table 3 class 5 of IS:8130-1984 and virgin grade PVC insulation and Powder coated extrued PVC sheathed suitable for working voltage upto 1100 Volts as per IS - 694 ; 1990 AND CONFORMING TO gtp OFGROUP A P. No. 12/ I No. (2.10.4) 3cx 6.0 Sqm KPWD Electrical SR 2014-15								
		10	30.00			300.00			
						300.00	₹ 202.00	Mtr	₹ 60,600.00
	Measurement Recorded On								
77	Labour charges for erection of new/ repaired submersible pumpset along with gi pipes inculding transportion each length pno 558 ino 3 bwssb sr 14-15								
		1	30.00			30.00			
		1	20.00			20.00			
						50.00	₹ 95.00	NO	₹ 4,750.00
	Measurement Recorded On								
78	Supplying and flush polished wood board with out front frount plank made of not less than 15mm thick plank after due groove cutting Finishing with necessary on fixing the same to the wall using tapered inverted wooden plugs screws etc., P No. 44No.6.6.6 KPWD Electrical SR 2014-15								
	20x20x2.5	1				1.00	₹ 323.00	Each	₹ 323.00

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

Contractor

Assistant Engineer

Assistant Executive Engineer

Assistant Executive Engineer
Kodigehalli Sub Division

Sl No.	Description of work	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Unit	Amount in Rs.
	Measurement Recorded On								
79	Supplying of 1.1 KV LT UG cable having aluminium condutor PVC insulated shethed, EXTREDED INNER SHEATHRD galvnised steel,stirp confirming IS 3975;1990 AND extruded PVC outer sheathing armoured cable IS 1554 part 1;1998 and confirming to GTP of group.P No.55/ I No.7.4.4 (4 core 16 Sqmm) KPWD Electrical SR 2014-15								
		1	35.00			35.00	₹ 150.00	Mtr	₹ 5,250.00
	Measurement Recorded On								
80	Labour charges for laying of 1.1 K.V class UG cable, P No. 61 / I No. 7.8.1 In existing trencg/duct 6Sqmm to 16 Sqmm) KPWD Electrical SR 2014-15								
		1	35.00			35.00	₹ 11.00	Mtr	₹ 385.00
	Measurement Recorded On								
81	Digging or trenching of 0.6m deep x 0.5 mtr wide refilling the trench to the required ground level and consolidating etc., completeP No. 62/ I. No.7.9.4 KPWD Electrical SR 2014-15								
	For Cutting Road Surface aspalt	1	30.00			30.00	₹ 125.00	Mtr	₹ 3,750.00
	Measurement Recorded On								
82	Supplying and fixing of Class A (meaium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class P. No. 62/ I No.7.12.1 KPWD Electrical SR 2014-								
	40mm dia GI pipe	1	3.00			3.00	₹ 369.00	Mtr	₹ 1,107.00
	Measurement Recorded On								
83	Supplying and fixing L.T. cast Iron pot head suitable for 1.1 KV class UG cable filled with necessary bituumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc., P. No.62/ I No. 7.13.2 KPWD Electrical SR 2014-15								
	16Sqmm	1				1.00	₹ 300.00	NO	₹ 300.00
	Measurement Recorded On								
84	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C cutouts and other equipments on the meter board using 40 mm dia 2.90 mm thick GI pipe 2.5 m long buried in a pit. The pit should be filled with equal propotion of solt and charocoal 150 mm alround the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size, as per ISI specification 7.3.3 IS 732 using 12 mm dia bolts, nuts, washers and check nuts, etc., the pipe shall have 16 throught holes of 122 mm dia, (P No.55, I No. 7.1) KPWD Electrical SR 2014-15								
		1				1.00	₹ 2,918.00	NO	₹ 2,918.00
	Measurement Recorded On								
85	Supplying and fixing of Porcelain fuse channel with cut out on existing wooden / panel using necessary nuts, bolts and washer etc., complete.... P No44/I No 6.7.4 KPWD Electrical SR 2014-15								
	100 Amps	3				3.00	₹ 386.00	Each	₹ 1,158.00
	Measurement Recorded On								
86	Supplying and fixing of heavy duty glands for ug cable 1.1 kv etc., complete.... P No62 I No 7.14.2 KPWD Electrical SR 2014-15								
	25mm dia								

Contractor

Assistant Engineer

Assistant Executive Engineer
Kodigehalli Sub Division

S No.	Description of work	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Unit	Amount in Rs.
		6				6.00	₹ 92.00	Each	₹ 552.00
	Measurement Recorded On								
87	Supplying and fixing miniature circuit breakers/solaters on existing MCB distribution boards using necessary fixing materiasl wiring complete as requireds 5 to 32 amps triple pole with all lead and lift, loading, unloading and labour charges etc complete as per specifications pno 47 IT 6.16.5 KPWD Electrical SR 2014-15								
		1				1.00	₹ 1,655.00	Each	₹ 1,655.00
	Measurement Recorded On								
88	Fabrication supplying and mounting MS box of 16 SWG suitable for floor /wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primer paint and finally finished with approved colour enamelled metal paint etc., complete box of 21600 sqcm @ Rs.0.33 P.No. 49, I. No.6.40.2 KPWD Electrical SR 2014-15								
	16SWG	12	60.00	30.00		21,600.00			
		2	20.00	60.00		2,400.00			
		10	33.00	25.00		8,250.00			
		1	20.00	25.00		500.00			
						32,750.00	₹ 0.35	Sq-cm	₹ 11,462.50
	Measurement Recorded On								
89	Gate value 50 mm nominal bore gun metal P. No.xxiii sl No. 673 PWD SR								
	50mm dia	1	6.00			6.00	₹ 1,765.00	NOS	₹ 10,590.00
	Measurement Recorded On								
90	NIPPLE 50 mm nominal bore gun metal P. No.xxXIXiii FITTINGS PWD SR								
	50mm dia	1				1.00	₹ 111.00	NOS	₹ 111.00
	Measurement Recorded On								
91	S BEND 50 mm nominal bore gun metal P. No.xxXIXiii FITTINGS PWD SR								
	50mm dia	1	6.00			6.00	₹ 235.00	NOS	₹ 1,410.00
	Measurement Recorded On								
92	TEE 50 mm nominal bore gun metal P. No.xxXIXiii FITTINGS PWD SR								
	50mm dia	1				1.00	₹ 180.00	NOS	₹ 180.00
	Measurement Recorded On								
93	Supplying and delivery at site brand new star / Essen/ Lotus/Sun-shines/Adarsh/ GK Controls best indigenous make combined energy meter - cum- control panel board unit of size 600x450 x200 mm minimum mechanically strong vermin and water proof. The unit shall have two detachable doors suitable for operation on 3 ph, 50Hz, 380/440 volts, A.C supply with spring loaded latch, locking device with a key ribs should be provided inside the door, canopy apron and louvers ventilators shall be provided. the combined energy meter cum- control panel board unit suitable for operation. The panel board shall be fabricated on single unit in the above components for suitable pumpset. PRED Bangalore Circle SE Approved Date 30.07.2010 15HP to 30 HP Star Delta Starter								
		1				1.00	₹ 10,700.00	NO	₹ 10,700.00

Assistant Executive Engineer
Kudigehalli Sub Division
BBMP, Bangalore

Contractor

Assistant Engineer

Assistant Executive Engineer

Sl No.	Description of work	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Unit	Amount in Rs.
	Measurement Recorded On								
94	Providing and installing at site of work pvc pipes including cost of pipes and special and labour including lowering into trenches laying true to line level and prefect linking at joints, leak proof including jointing of approved type with all labour and lift charges handling charges including encasing the pipes all round to a depth not less than 15 cms with gravel or selected earth available from the excavation etc. complete PVC pipe of 6kg/cm2 75 mm (0.662) (Page no.13, Item No.7.1.5) (kuws and db)								
		10	30.00			300.00			
					Per Rmtr	300.00	₹ 136.00	Mtr	₹ 40,800.00
95	KSRB13-3.1: Providing and fixing to wall celling and floor glavanised/ mild steel tubes (medium grade 1.27 kg /mt) B class 50 mm dia nominal bore with all fittings (earth work in trenches to be measured and paid for separately) including cost of all materials, labour charges, HOM of equipments and testing complete as per specifications. (Page 92 ITEM NO 13.6)								
	Pre - Measurement Quantity Recorded On Page No 02					415.00			
	Quantity to be Paid					415.00	₹ 580.00	Mtr	₹ 2,40,700.00
	Measurement Recorded On								
96	KSRB 13-7.1-4: Providing and fixing in position 50mm nominal bore gun metal non-return valve horizontal type of approved make including cost of all materials, labour and HOM of equipments with all leads complete as per specifications NO KBS 13.2.16 / 13.13 (Page No.95 Item No. 13.55 / PWD SR 2018-19)								
		1				1.00	₹ 1,508.00	NOS	₹ 1,508.00
	Measurement Recorded On								
97	Providing NP/CP waste unions conforming to ISI specifications and fixing them in position as per directions including cost of materials, fixtures and conveyance to work spot etc., complete. (P. No.97/ I. No. 13.81.3 PWD SR)								
	50mm dia	1	2.00			2.00	₹ 239.00	NOS	₹ 478.00
98	Earth work excavation for foundation of buildings, culverts, water supply, sanitary lines and electrical conduits either in pits or in trenches, 1.5m and above in width, in ordinary soil, exceeding 1.5m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with all lead upto 50m after breaking of clods complete as per specifications.(P.No.6, I.No.2.1) (SR of PWD)								
	Pre - Measurement Quantity Recorded On Page No 02					186.75			
	Quantity to be Paid					186.75	₹ 283.00	Cu-m	₹ 52,850.00
99	KSRB 2.3 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms in depth, compacting each deposited layer by ramming after watering with a lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications Specification No.KBS 2.1 .(Page No.7, Item No. 2.10)								
	Pre - Measurement Quantity Recorded On Page No 02					186.75			
	Quantity to be Paid					186.75	₹ 227.00	Cu-m	₹ 42,392.00

Contractor

Assistant Engineer

30/11

Assistant Executive Engineer

Assistant Executive Engineer

Kodigehalli Sub Division

BBMP, Bangalore

S No.	Description of work	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Unit	Amount in Rs.
	Measurement Recorded On 28.10.2020								
100	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum) Item No 22.6.1								
	Balaji Layout 5th and 6th Linking Road	1	30.00	5.00	0.15	22.50			
		1	12.50	4.60	0.15	8.63			
						31.13	₹ 5,550.00	Cu-m	₹ 1,72,743.75
								Total	₹ 9,76,095.25
								12% GST	₹ 1,17,131.43
								Grand Total	₹ 10,93,226.68

Assistant Executive Engineer
Kodigehalli Sub Division
BBMP, Bangalore

Contractor

Assistant Engineer

Assistant Executive Engineer